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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,629	04/02/2004	Paul Lapstun	HYT008US	9559

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SILVERBROOK RESEARCH PTY LTD  
393 DARLING STREET  
BALMAIN, NSW 2041  
AUSTRALIA

EXAMINER
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TAYLOR, APRIL ALICIA

ART UNIT	PAPER NUMBER
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2876

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/815,629

Applicant(s)

LAPSTUN ET AL.

Examiner

April A. Taylor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-16, 19, 20, 24, 25 and 41-49 is/are rejected.
- 7) ☒ Claim(s) 6, 17, 18, 21-23, 26-40 and 50-57 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

2. Claim 50 is objected to because of the following informalities: Delete: The phrase "The method of claim 45, the method being performed using the reading device of claim 1" (see line 4). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 9, 10, 19, 20, 24, 25, and 41-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilz, Sr. et al (US 6,772,949), hereinafter Wilz, in view of Kawaguchi (US 2002/0018705).

Re claims 1-3 and 45-47: Wilz teaches a reading device comprising a housing being held by a user, the housing including a grip and a nose having an aperture; a radiation source for emitting radiation from the housing; a image sensor for sensing an

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exposes coded data portion; a processor for determining product identity data indicative of the identity of the product item; an input control; and wherein the sensor senses the coded data upon activation of the input control by at least one of a user and physical contact between the housing and the product item. (See col. 20, line 45 to col. 21, line 32; col. 62, line 66 to col. 64, line 42)

Wilz fails to teach or fairly suggest wherein the interface surface provided on the product item includes a plurality of coded data portions.

Kawaguchi shows an article 20 having a plurality of ID codes disposed on an interface surface of the article 20 (see fig. 2). In view of Kawaguchi teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ an article having a plurality of ID codes to the teachings of Wilz in order to successfully read the product item identity.

Re claims 4 and 48: Wilz teaches wherein the input device includes a trigger, the reading device senses coded data in response to activation of the trigger by the user (see col. 2, lines 53+; and col. 20, line 45 to col. 21, line 32).

Re claim 5: Wilz teaches wherein the housing is in the form of a pen housing.

Re claims 9 and 10: Wilz teaches wherein the processor generates scan data representing the identity of the product item.

Re claims 19 and 20: Wilz teaches wherein the interface surface includes at least one region, the region including coded data indicative of an identity of the region, and wherein the processor determines the identity of the at least one region from at least

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some of the sensed coded data (see col. 20, line 45 to col. 21, line 32; and col. 62, line 66 to col. 64, line 42).

Re claim 24: Wilz teaches wherein the scanning device includes a bandpass filter (see col. 81, line 53 to col. 82, line 11).

Re claim 25: Wilz teaches wherein the scanning device detects the presence of a plurality of product items in the sensing region (see col. 20, line 45 to col. 21, line 32; col. 60, line 29+; col. 62, line 66 to col. 64, line 42).

Re claim 41: Wilz teaches wherein the scanning device senses coded data from the interface surfaces of a number of product items substantially simultaneously (see col. 20, line 45 to col. 21, line 32; col. 60, line 29+; col. 62, line 66 to col. 64, line 42).

Re claim 42: Wilz teaches wherein the scanning device further includes a memory (see col. 20, line 45 to col. 21, line 32; col. 60, line 29+; col. 62, line 66 to col. 64, line 42).

Re claims 43 and 44: Wilz teaches wherein the interface surface is at least one of a product item packaging; a product item labeling; and a surface of the product item (see figs. 6A-6C).

5. Claims 7, 8, 11, 12, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilz, Sr. et al. (US 6,772,949) as modified by Kawaguchi (US 2002/0018705). The teachings of Wilz, Sr. et al as modified by Kawaguchi have been discussed above.

Re claims 7 and 49: Wilz, Sr. et al as modified by Kawaguchi fail to specifically teach or fairly suggest wherein the coded data encodes an EPC associated with the product item, and wherein the processor determines the EPC. However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ a coded data which encodes an EPC associated with the product item and a processor for determining the EPC to the teachings of Wilz, Sr. et al as modified by Kawaguchi in order to uniquely identify the product item.

Re claim 8: Wilz, Sr. et al as modified by Kawaguchi fail to specifically teach or fairly suggest wherein the product identity data distinguishes the product item from every other product item. However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ product identity data that distinguishes the product item from other product items to the teachings of Wilz, Sr. et al as modified by Kawaguchi in order to identify each product accurately.

Re claims 11 and 12: Wilz, Sr. et al as modified by Kawaguchi fail to specifically teach or fairly suggest wherein the processor compares the determined product identity data to previously determined product identity data; and generates scan data representing the identity of the product item if the determined product identity data has not been previously determined. However, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ a processor for comparing the determined product identity data to previously determined product identity data and generating scan data representing the identity of the product item if the determined product identity data has not been previously determined to the teachings of

Wilz, Sr. et al as modified by Kawaguchi in order to prevent the product item from being scanned more than once.

6. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilz, Sr. et al. (US 6,772,949) as modified by Kawaguchi (US 2002/0018705) in view of Roustaei et al (US 6,685,095). The teachings of Wilz, Sr. et al as modified by Kawaguchi have been discussed above.

Wilz, Sr. et al as modified by Kawaguchi fail to teach or fairly suggest wherein the coded data is redundantly encoded using Reed-Solomon encoding; wherein the processor uses the redundantly encoded data to detect one or more errors in the coded data; and wherein the reading device corrects the one or more detected errors.

Roustaei teaches an optical code reading system wherein a coded data is redundantly encoded using Reed-Solomon encoding; wherein the processor uses the redundantly encoded data to detect one or more errors in the coded data; and wherein the reading device corrects the one or more detected errors (see abstract; col. 3, line 66 to col. 4, line 16; and col. 4, line 54 to col. 5, line 8). In view of Roustaei's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ the well known Reed-Solomon code; and a system for detecting errors in the coded data and correcting the detected errors to the teachings of Wilz, Sr. et al as modified by Kawaguchi in order to ensure that the information read from the optically encoded data is accurate.

***Allowable Subject Matter***

7. Claims 6, 17, 18, 19-21, 26-40, and 50-57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fail to teach or fairly suggest, in conjunction with other limitations in the claim, wherein the coded data is indicative of a plurality of reference points corresponding to a respective location on the interface surface, and wherein the processor generates position data representing the position of a sensed reference point on the interface surface. Furthermore, the prior art of record fail to specifically teach or fairly suggest wherein the coded data is disposed with at least one layout, the layout having at least order  $n$  rotational symmetry, where  $n$  is at least two, the layout including  $n$  identical sub-layouts rotated  $1/n$  revolutions apart about a center of rotational symmetry of the layout, the coded data disposed in accordance with each sub-layout including rotation indicating data that distinguishes the rotation of that sub-layout from the rotation of at least one other sub-layout within the layout.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Connolly et al (US 6,764,012); Bard et al (US 6,607,134); Paratore et al (US 6,234,393); Gurevich et al (US 6,651,886); and Swartz (US 6,375,079).



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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to April A. Taylor whose telephone number is (571) 272-2403. The examiner can normally be reached on Monday - Friday from 6:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
AAT

January 8, 2007



**THIEN M. LE**  
**PRIMARY EXAMINER**